Oct. 21, 1924. 1,512,775

J. C. LITTLE

FOOTBOARD

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Fig. 1.

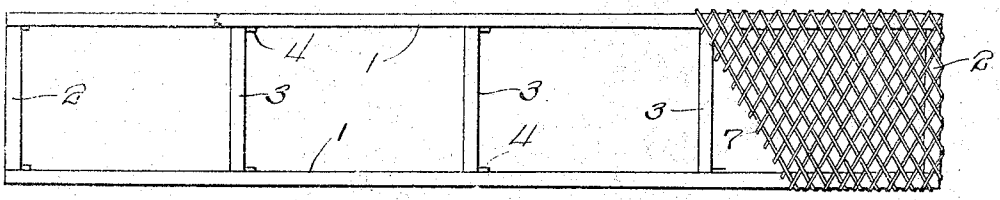


Fig. 2.

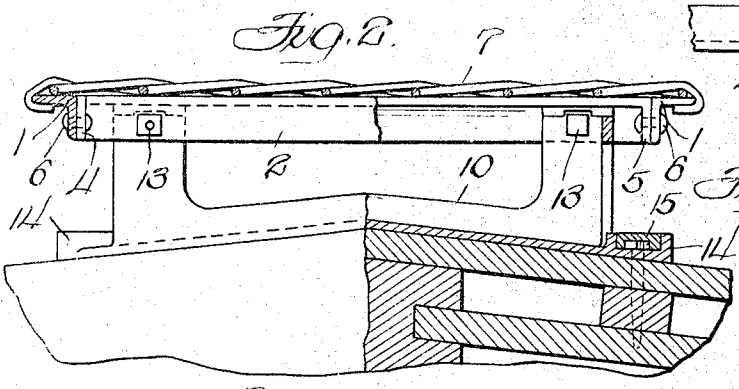


Fig. 3.

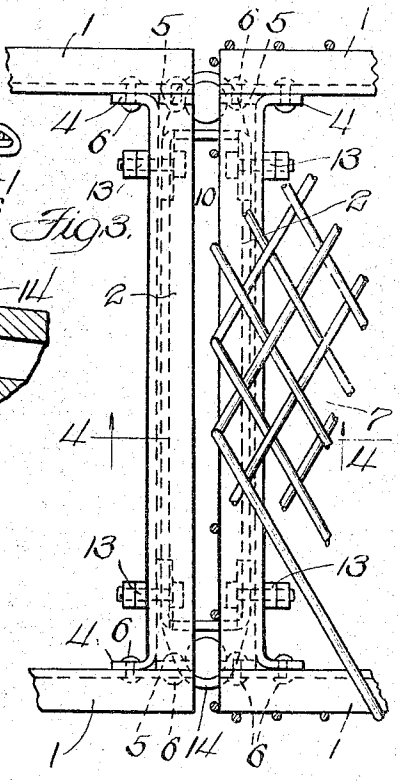


Fig. 4.

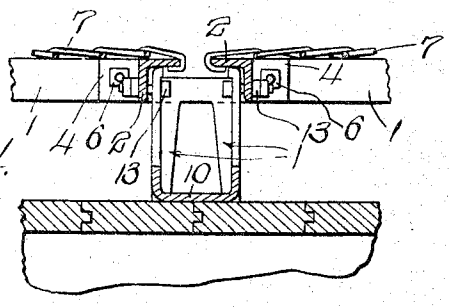


Fig. 5.

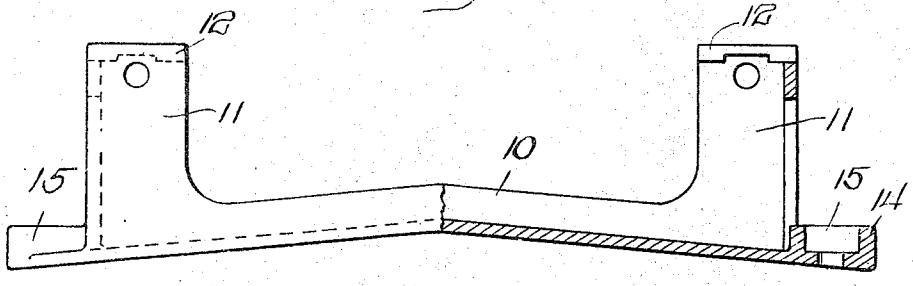
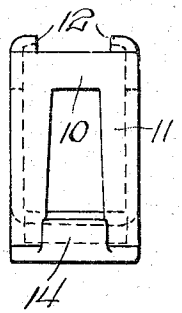


Fig. 6.



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Fig. 7.

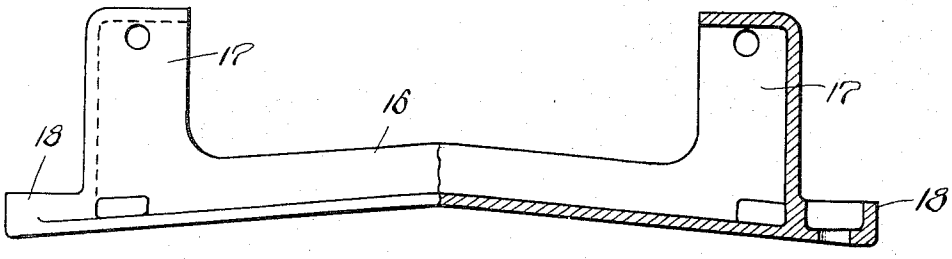


Fig. 8.

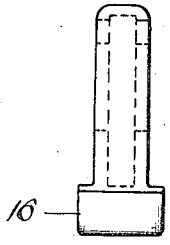


Fig. 9.

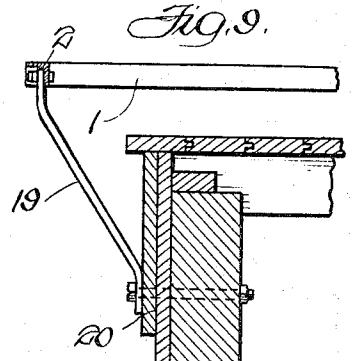


Fig. 10.

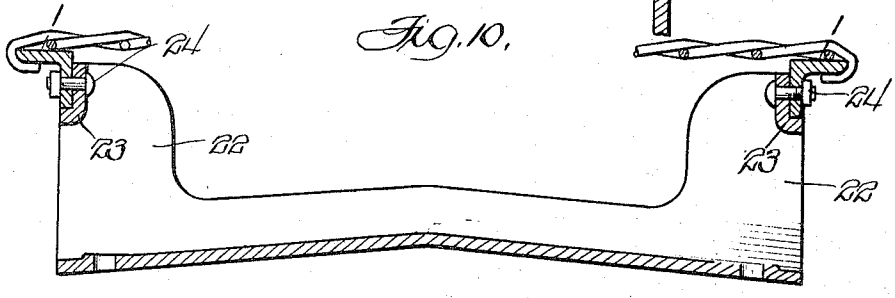
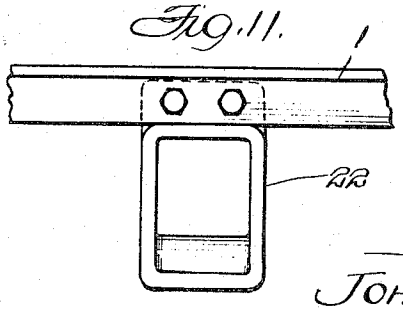


Fig. 11.



Inventor:
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By Foree Bain & Hinkle Attys.

Patented Oct. 21, 1924. 1,512,775

UNITED STATES PATENT OFFICE.

JOHN C. LITTLE, OF CHICAGO, ILLINOIS, ASSIGNOR TO H. G. DORAN & CO., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

FOOTBOARD.

Application filed January 20, 1923. Serial No. 613,821.

To all whom it may concern:

Be it known that I, JOHN C. LITTLE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Footboards, of which the following is a specification.

This invention relates to foot-boards.

It will be explained as applied to a running board for railway cars and the like.

Patent No. 1,019,627 granted March 5, 1912, to W. E. Fowler, Jr., shows a foot-board having an open mesh tread of expanded metal fabric. My copending application Serial No. 580,597, filed August 9, 1922, shows a foot-board having an open mesh tread of woven wire fabric.

With either type of foot-board it was proposed to secure the ends of the metal fabric to the supports or "saddles" which supported the fabric above the roof of the car and anchored the fabric thereto. Ordinarily such construction makes it advisable or necessary to assemble the tread and saddles at the point of manufacture and to ship the assembled structure to the place of application.

Storage and shipment of such assembled foot-boards may be objectionably inconvenient and expensive. The relative non-interchangeability of such assembled structures may be objectionable because of the relatively large numbers of boards which it may be necessary to manufacture and keep in stock to fit various sizes and styles of cars.

One of the objects of this invention is to provide an improved foot-board.

Another object is to provide a metal open mesh fabric foot-board which may be manufactured in standard parts or units adapted to be separately stocked and shipped.

Another object is to provide an improved support or saddle for the tread.

Other objects and advantages will hereinafter appear.

Embodiments of the invention are illustrated in the accompanying drawings.

The views in the drawings are as follows:

Fig. 1 is a top plan of a section of the tread unit or section.

Fig. 2 is an end elevation and partial cross section of a foot-board in place on a car roof.

Fig. 3 is an enlarged top plan of a joint between two tread units or sections.

Fig. 4 is a section on the line 4—4 of Fig. 3.

Fig. 5 is a front elevation and partial section of a saddle or support for carrying the ends of two adjacent tread units.

Fig. 6 is a side elevation of the saddle of Fig. 5.

Fig. 7 is a front elevation and partial section of a saddle for supporting and anchoring the tread units intermediate the ends thereof.

Fig. 8 is a side elevation of the intermediate saddle of Fig. 7.

Fig. 9 shows an arrangement for supporting the overhanging ends of the tread at the ends of a car.

Fig. 10 shows a cross section of a different association or relation of tread and saddle.

Fig. 11 is a side elevation of the saddle of Fig. 10.

The tread unit of the new foot-board is adapted to be manufactured in sections of any desired standard lengths. It comprises a self supporting framework and a metal open work fabric covering or tread of expanded metal, woven wire or other suitable material.

The framework comprises two parallel side members or side rails 1 and two parallel end members or end rails 2. Intermediate cross members 3 may be applied between side rails 1 if desired. The side, end and intermediate members of the framework may be formed from suitable angle iron bars.

The end and intermediate members may be secured to the side rails to form a self supporting framework unit as follows: Each end of an end or intermediate member is cut at the angle of its webs for some distance back from the end thereof. The two separated and angularly related webs are then bent at substantially right angles to the body of the member to form a pair of flaps for attachment to the adjacent side rail. One flap 4 (formed from the vertical web), is bent inwardly to fit along the vertical web of corresponding side rail 1. The other flap 5 (formed from the horizontal web) is bent downwardly to fit along the vertical web of the side rail. The flaps may be secured to the side rails by suitable means such as rivets 6 or spot welding.

The framework unit is covered with a fab-

ric 7 which forms the open mesh metallic tread or support for the feet of the trainmen. By placing the side and end rails of the framework so that their horizontal webs extend outwardly, as shown most clearly in Figs. 2 and 4, the fabric may be bent sharply over the edges thereof. Ordinarily the set or rigidity of the fabric will render any other anchorage unnecessary, although it may be additionally secured to the frame members by rivets, bolts or spot welding if desired.

Figs. 2 to 6, inclusive, show a form of saddle for anchoring the tread to a car roof. With this saddle the tread unit will ordinarily have its end members secured thereto. The saddle comprises a casting 10 of malleable iron or other suitable material. The casting is curved, as shown most clearly in Figs. 2 and 5, to approximately fit over the ridge of the car to which it is to be applied. It has two upwardly projecting legs 11 at opposite ends, for attachment to the tread unit. Each leg has two upwardly and inwardly projecting lugs 12. These lugs are adapted to lie against the inner surface of the horizontal web of the corresponding end rail of the tread section, as most clearly shown in Fig. 4. The separation between lugs 12 of each leg gives sufficient space for the overhanging parts of the horizontal end rail webs and the fabric of adjacent tread sections. The legs of the saddles are secured to end rails 2 by suitable means such as bolts 13 which pass through registering holes therein. Each saddle may be provided with a projecting foot 14 through which a bolt or screw may be passed into the car roof. The hole for this anchoring bolt or screw may be enlarged at its upper end to form a small cup 15 for receiving the head and any suitable weatherproof compound.

Figs. 7 and 8 show a construction of similar character for the saddles to be secured to intermediate cross members 3. These intermediate saddles 16 are likewise made from malleable iron or other suitable material. Each has two upright legs 17 to lie against and be secured to the webs of the intermediate cross members. Bolts may be used to secure the intermediate saddles to the corresponding intermediate cross members. Screws or bolts, passing through feet 18 and into the car roof anchor these saddles in place.

Fig. 9 shows a simple arrangement for supporting the overhanging end of a tread section at the end of a car roof. A substantially S-shaped brace 19 is secured at its yoke to an end rail 2. The ends of the legs of brace 19 are anchored to the end wall 20 of the car.

Figs. 10 and 11 show a modified end saddle which is adapted to be secured to the side rails of a tread unit. The saddle is formed to fit over the ridge of a car and has upright legs 22 quite similar to the saddles previously described. Legs 22 are formed to provide sockets or shoulders 23 for receiving and supporting the vertical webs of side rails 1. The side rail and saddle are secured together by suitable means such as bolts 24.

The end and intermediate saddles may be cored and webbed as shown to decrease their weight.

Having described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. A foot-board for the roof of railway cars and the like, having a tread section comprised of a pair of side rails and a pair of end rails secured together to form a self supporting framework, and an open mesh metal fabric carried by the framework; and a saddle for attachment to one of the rails and the car roof and supporting the fabric above the roof.

2. A foot-board for the roof of railway cars and the like, having a self supporting tread section comprising a pair of end rails and a pair of side rails secured together to form a rectangular framework unit, and a metallic open mesh fabric tread between the rails and anchored thereto; and a saddle attachable to the rails at each end of a unit and to the car roof.

3. A foot-board section for railway cars and the like comprising a rectangular self supporting framework unit having two angle iron side rails and two angle iron end rails secured together, an open mesh metallic fabric tread extending between the rails and anchored thereto, and a saddle at each end of the framework and for supporting the tread above a roof, each saddle having an upright leg for carrying the framework and for attachment to one of the rails.

In testimony whereof I hereunto subscribed my name.

JOHN C. LITTLE.